

Claims:

The following listing of claims replaces all prior versions or listings of claims.

1. (Currently Amended) A control device for controlling a scanning speed of a scanner, comprising:

a decision device coupled to an input device for receiving input image data, ~~computing and recording an accessed quantity of input image data~~ counting and recording data access volume, and outputting count data and ~~within the decision device and finally outputting decision data and output image data;~~

a driving device coupled to the decision device for receiving the decision data; and

an input/output interface coupled to the decision device for receiving the output image data.

2. (Original) The control device in claim 1, wherein the decision device further includes:

an image buffer coupled to an output terminal of the input device for receiving the input image data, temporarily storing the input image data and outputting output image data;

an up-down counter coupled to an input terminal of the image buffer and an output terminal of the image buffer for counting and recording data access volume inside the image buffer and outputting count data;

and a comparator coupled to the up-down counter for receiving the count data, deciding whether to increase or decrease the scanning speed according to the count data and outputting the decision data.

3. (Original) The control device of claim 2, wherein the up-down counter enables an up-counting function to increase a value inside the counter by one when the up-down counter detects transfer of input image data into the image buffer, and the up-down counter enables a down-counting function to decrease the value inside the counter by one when the counter detects transfer of output image data to the input/output interface.

4. (Original) The control device of claim 2, wherein the up-down counter enables a down-counting function to decrease a value inside the counter by one when the up-down counter detects a transfer of input image data into the image buffer, and the up-down counter enables a up-counting function to increase the value inside the counter by one when the counter detects a transfer of output image data to the input/output interface.

5. (Original) The control device of claim 1, wherein the input device further includes:
an optical sensor for receiving an external signal and outputting an analogue signal;
an analogue/digital converter coupled to the optical sensor for receiving the analogue signal and converting the analogue signal into a digital signal, and then outputting the digital signal; and
an image processor coupled to the analogue/digital converter and the decision device for receiving the digital signal and converting the digital signal into the input image data, and then outputting the input image data to the decision device.

6. (Original) The control device of claim 1, wherein the driving device further includes:
an electric motor; and
a motor controller coupled to the electric motor and the decision device for receiving the decision data and controlling the running speed of the electric motor according to the decision data.

7. (Original) A method for controlling a scanning speed of a scanner, comprising:
providing count data; providing a largest data access volume; and
determining the scanning speed of a scanner according to a ratio between the count data and the largest data access volume.

8. (Original) The control method of claim 7, wherein the scanner scans at full speed when the count data is greater than $\frac{3}{4}$ of the largest data access volume.

9. (Original) The control method of claim 7, wherein the scanner scans at $\frac{3}{4}$ of full speed when the count data is smaller than $\frac{3}{4}$ of the largest data access volume but greater than $\frac{1}{2}$ of the largest data access volume.

10. (Original) The control method of claim 7, wherein the scanner scans at $\frac{1}{2}$ of full speed when the count data is smaller than $\frac{3}{4}$ of the largest data access volume but greater than of the largest data access volume.

11. (Original) The control method of claim 7, wherein the scanner scans at $\frac{1}{4}$ of full speed when the count data is smaller than $\frac{1}{4}$ of the largest data access volume.